COMMUNICATIONS SYSTEMS SYMBOLS

	DETAIL REFERENCE	REFER TO REFERENCED DEVICE DESCRIPTION FOR ADDITIONAL REQUIREMENTS.
▽#	C.02 / R.01	DATA OUTLET WALL MOUNTED AT 18"AFF U.N.O. (# = PORT QUANTITY, NO /# = 1-PORT)
◈#	C.02 / R.01	DATA OUTLET MOUNTED ABOVE ACCESSIBLE CEILING,FLUSH IN HARD CEILING, OR TIGHT TO STRUCTURE OVERHEAD (AT EXPOSED CEILING), U.N.O. (# = PORT QUANTITY, NO / # = 1-PORT)
▽POS/#	C.02 / R.01	POINT-OF-SALE (POS) DATA OUTLET WALL MOUNTED AT 18" AFF U.N.O. (# = PORT QUANTITY, NO /# = 1-PORT)
⊽POS/#	C.02 / R.03	POINT-OF-SALE (POS) DATA OUTLET IN FLOORBOX. REFER TO ELECTRICAL SHEETS FOR FLOORBOX DETAILS. (# = PORT QUANTITY, NO /# = 1-PORT)
▽WLAN/#	C.04 / R.01	WIRELESS LAN DATA OUTLET WALL MOUNTED AT 10'-0" AFF, U.N.O. (# = PORT QUANTITY, NO /# = 1-PORT)
◈WLAN/#	C.04 / R.01	WIRELESS LAN OUTLET MOUNTED ABOVE ACCESSIBLE CEILING, FLUSH IN HARD CEILING, OR TIGHT TO STRUCTURE OVERHEAD (AT EXPOSED CEILINGS), U.N.O. (# = PORT QUANTITY, NO / # = 1-PORT)
▽CAM	C.03 / S.02	DATA OUTLET FOR IP-BASED SECURITY CAMERA WALL OR POLE MOUNTED WITHIN SECURITY CAMERA BACK-BOX.
◈CAM	C.03 / S.02	DATA OUTLET FOR IP-BASED SECURITY CAMERA CEILING MOUNTED WITHIN SECURITY CAMERA BACK-BOX.

GENERAL NOTES:

1. REFER TO DETAILS AS INDICATED ABOVE FOR ADDITIONAL RACEWAY, CABLING AND/OR DEVICE INFORMATION.
2. REFER TO OTHER SYSTEMS DRAWINGS (AV, SECURITY, ETC.) FOR BACK-BOX REQUIREMENTS SPECIFIC TO EACH DEVICE TYPE. SELECT DEVICES MAY REQUIRE SPECIALIZED BACK-BOX TYPES, SIZES AND MOUNTING CONDITIONS AS DEPICTED IN OTHER SYSTEMS DRAWINGS.
3. PROVIDE CAT.6 (1G) UTP CABLE TERMINATED (PER EIA/TIA-T568B) ON CAT.6 OUTLETS AND/OR PATCH PANELS FOR ALL TELE/DATA DEVICES, U.N.O.
4. RG-6 COAXIAL CABLE TERMINATED WITH F-TYPE CONNECTORS FOR COAXIAL DEVICES.

PATHWAY REQUIREMENTS:

1. J-HOOK PATHWAY: ROUTE AND TERMINATE CONDUIT WITHIN NEAREST ACCESSIBLE CEILING SPACE. PROVIDE DEDIATED J-HOOKS AT 48-INCHES ON CENTER FOR REMAINING CABLE RUN TO NEAREST CABLE TRAY (AS APPLICABLE) OR TELECOM ROOM / HORIZONTAL CROSS-CONNECT LOCATION, UNLESS NOTED OTHERWISE. PROVIDE CONDUIT PATHWAY THROUGH WALLS AND ACCROSS NON-ACCESSIBLE OR EXPOSED CEILING AREAS TO ENSURE UNOBSTRUCTED CABLE PATHWAY FOR ENTIRE CABLE RUN.

CROSS-CONNECTS

	DETAIL REFERENCE	REFER TO REFERENCED DEVICE DESCRIPTION FOR ADDITIONAL REQUIREMENTS.
SP	C.11	FIBER OPTIC DATA SERVICE PROVIDER CROSS-CONNECT (SP) PROVIDED BY OTHERS, (SHOWN FOR REFERENCE ONLY).
MC	C.11	FIBER OPTIC DATA MAIN CROSS-CONNECT (MC).
HC	C.13	DATA HORIZONTAL CROSS-CONNECT (HC).

INFRASTRUCTURE

	DETAIL REFERENCE	REFER TO REFERENCED DEVICE DESCRIPTION FOR ADDITIONAL REQUIREMENTS.
TGB	G.02	TELECOMMUNICATIONS GROUND BUS.
	N/A	WALL MOUNTED SWING OUT EQUIPMENT RACK. (REF: RACK / CABINET SCHEDULES)

SECURITY SYSTEMS SYMBOLS

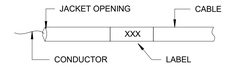
	DETAIL REFERENCE	REFER TO REFERENCED DEVICE DESCRIPTION FOR ADDITIONAL REQUIREMENTS.
L:XX	S.01	FIXED (INTERIOR) SECURITY CAMERA. CAMERA SHOWN FOR VIEW INTENT ONLY. ALL CAMERAS ARE OFOI.

GENERAL NOTES:

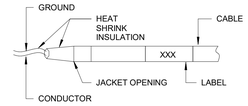
1. REFER TO DETAILS AS INDICATED ABOVE FOR ADDITIONAL RACEWAY, CABLING AND/OR DEVICE INFORMATION.
2. REFER TO "COMMUNICATION SYSTEM SYMBOLS" LEGEND FOR STRUCTURED CABLING (DATA) REQUIREMENTS FOR IP-ENABLED DEVICES. SECURITY DETAILS AND/OR SCHEDULES DEFINE RACEWAY REQUIREMENTS, INCLUDING BUT NOT LIMITED TO BACK-BOX TYPE, SIZE, MOUNTING CONDITION AND HEIGHT.

PATHWAY REQUIREMENTS:

1. J-HOOK PATHWAY: ROUTE AND TERMINATE CONDUIT WITHIN NEAREST ACCESSIBLE CEILING SPACE. PROVIDE DEDIATED J-HOOKS AT 48-INCHES ON CENTER FOR REMAINING CABLE RUN TO NEAREST CABLE TRAY (AS APPLICABLE) OR SECURITY ROOM / TELECOM ROOM, UNLESS NOTED OTHERWISE. PROVIDE CONDUIT PATHWAY THROUGH WALLS AND ACCROSS NON-ACCESSIBLE OR EXPOSED CEILING AREAS TO ENSURE UNOBSTRUCTED CABLE PATHWAY FOR ENTIRE CABLE RUN.



COMMUNICATION CABLE



AUDIOVISUAL / SECURITY /NURSE CALL SYSTEMS CABLE

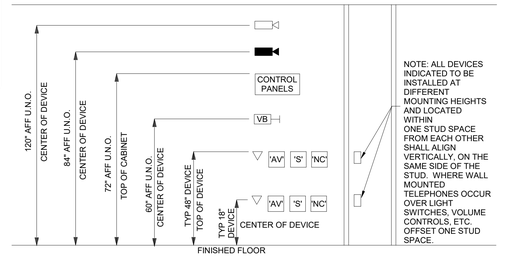
GENERAL NOTES:

1. CABLES: ALL SYSTEM CABLES OUTSIDE OF CONDUIT SHALL BE SUPPORTED WITHIN CEILING SPACES, UNDER FLOORS SPACES, ALONG WALLS, AND WITHIN EQUIPMENT RACKS PER SPECIFICATIONS.
2. CABLE DRESSING: ALL CABLES SHALL BE INSTALLED PER INFORMATION SHOWN HERE AND WITHIN SPECIFICATIONS. ALL CABLE NOT MEETING REQUIREMENTS HEREIN WILL BE REDRESSED AND / OR REPLACED AS NECESSARY.
3. LABELS: PROVIDE THERMAL TRANSFER / SELF-LAMINATING TYPE LABELS LOCATED ~2 INCHES FROM EACH END OF TERMINATED CABLE. HAND WRITTEN LABELS WILL NOT BE ACCEPTED.
4. HEAT SHRINK: PROVIDE HEAT SHRINK AT EACH EACH END OF TERMINATED CABLE FOR ALL AUDIOVISUAL / SECURITY / NURSE CALL CABLES. TAPE (ELECTRICAL OR OTHERWISE) UTILIZED IN PLACE OF HEAT SHRINK SHALL NOT BE ACCEPTED.
5. GROUND CONDUCTOR: PROVIDE CLEAR HEAT SHINK FOR ALL TERMINATED GROUND CONDUCTORS. FOR ALL UN-TERMINATED GROUND CONDUCTORS, CUT BACK TO JACKET OPENING AND COVER WITH HEAT SHRINK.

CABLE DRESS REQUIREMENTS

CABLE DRESS COLOR REQUIREMENTS

USE	CABLE COLOR	OUTLET TERMINATION	PATCH PANEL TERMINATION
DATA	BLUE	BLUE	BLUE
VOICE	WHITE	WHITE	WHITE
WAP	PURPLE	PURPLE	PURPLE
CAM	GREEN	GREEN	GREEN
POS	YELLOW	YELLOW	YELLOW



TYPICAL DEVICE MOUNTING HEIGHTS
NO SCALE

NOTES:

1. MOUNTING HEIGHTS SHOWN ON ARCHITECTURAL ELEVATIONS SHALL GOVERN OVER THOSE SHOWN ABOVE
2. CONTRACTOR SHALL ENSURE THAT ALL MOUNTING HEIGHTS COMPLY WITH CURRENT ADA REQUIREMENTS.
3. ALL ABOVE COUNTER DEVICES SHALL BE MOUNTED 8" ABOVE COUNTER OR A MAXIMUM OF 44" AFF (TO TOP OF DEVICE). VERIFY HEIGHTS WITH ARCHITECT.
4. WHERE EVER DEVICES ARE INDICATED TO BE ABOVE DOORS, DEVICE SHALL BE CENTERED BETWEEN TOP OF DOOR TRIM AND CEILING LINE.

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REVIEWED FOR CODE COMPLIANCE
09/23/2022

△	Date	Description
1	05/20/2022	ISSUE FOR CONSTRUCTION

Seal / Signature

Project Name
Steamboat Base Village Redevelopment

Project Number
003.7835.000

Description
TECHNOLOGY LEGEND

Scale
NO SCALE

2B-T0.000

ABBREVIATIONS

AC	ALTERNATING CURRENT
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
ALD	ASSISTED LISTENING DEVICE
ALPETH	ALUMINUM POLYETHYLENE
ALS	ASSISTED LISTENING SYSTEM
ALT	ALTERNATE
AMP, A	AMPERE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ANT	ANTENNA
ATSC	ADVANCED TELEVSION SYSTEMS COMMITTEE (DIGITAL TELEVISION SIGNAL)
AUX	AUXILIARY
AUDIO	MICROPHONE OR LINE LEVEL BALANCED SIGNAL
AV	AUDIO VIDEO
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUTOMATION SYSTEM
BFC	BELOW FINISHED CEILING
BFG	BELOW FINISHED GRADE
BICSI	BUILDING INDUSTRY CONSULTING SERVICES INTERNATIONAL
BMS	BUILDING MANAGEMENT SYSTEM
BRI	BASIC RATE INTERFACE (ISDN)
C	CONDUIT
CATV	COMMUNITY ANTENNA TV (CABLE TV)
CC	CONTACT CLOSURE
CMP	COMMUNICATIONS PLENUM CABLE
CMR	COMMUNICATIONS RISER CABLE
CO	CENTRAL OFFICE
COAX	COAXIAL
CODEC	CODER / DECODER
CSI	CONSTRUCTION SPECIFICATIONS INSTITUTE
DAS	DISTRIBUTED ANTENNA SYSTEM
DB	DECIBEL
DC	DIRECT CURRENT
DEMARC	DEMARCATION
DISC	DISCONNECT
DM	DIGITAL MEDIA SIGNAL
DMP	DIGITAL MEDIA PLAYER
DP	DISPLAYPORT
DSL	DIGITAL SUBSCRIBER LINE
DSP	DIGITAL SIGNAL PROCESSOR
DSS	DIGITAL SATELLITE SIGNAL
DVI-D	DIGITAL VISUAL INTERFACE-DIGITAL
DVI-I	DIGITAL VISUAL INTERFACE-INTEGRATED
DWG	DRAWING
EBC	EQUIPMENT BONDING CONDUCTOR
EIA	ELECTRONICS INDUSTRY ALLIANCE
ELEC	ELECTRIC OR ELECTRICAL
ELEV	ELEVATOR
EMC	ELECTROMAGNETIC COMPATIBILITY
EMI	ELECTROMAGNETIC INTERFERENCE
EMT	ELECTRIC METALLIC TUBING
ENG	ELECTRONIC NEWS GATHERING
EX	EXISTING
FA	FIRE ALARM
FAA	FEDERAL AVIATION ADMINISTRATION
FACP	FIRE ALARM CONTROL PANEL
FLEX	FLEXIBLE
FM	FREQUENCY MODULATION
FO	FIBER OPTIC
FP	FLAT PANEL (VIDEO DISPLAY)
FTP	FILE TRANSFER PROTOCOL
GA	GAUGE
GALV	GALVANIZED
GB	GIGABYTE
GbPS	GIGABITS PER SECOND
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER

ABBREVIATIONS

GHz	GIGAHERTZ
GMP	GUARANTEED MAXIMUM PRICE
GUI	GRAPHICAL USER INTERFACE
HC	HORIZONTAL CROSS-CONNECT
HD	HIGH DEFINITION
HDMI	HIGH DEFINITION MULTIMEDIA INTERFACE
HVAC	HEATING, VENTILATING, AND AIR-CONDITIONING
Hz	HERTZ
IC	INTERMEDIATE CROSS-CONNECT
ID	INSIDE DIAMETER
IDF	INTERMEDIATE DISTRIBUTION FRAME
IEC	INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.
IF	INTERFACE
IG	ISOLATED GROUND
IMC	INTERMEDIATE GRADE METALLIC CONDUIT
IP	INTERNET PROTOCOL (ETHERNET)
IR	INFRARED SIGNAL
ISDN	INTEGRATED SERVICES DIGITAL NETWORK
ISO	INTERNATIONAL ORGANIZATION OF STANDARDS
J-BOX	JUNCTION BOX
kb	KILOBIT
kbps	KILOBIT PER SECOND
kcmil	THOUSANDS OF CIRCULAR MILLS
kHz	KILOHERTZ
km	KILOMETER
kVA	KILOVOLT AMPERES
kW	KILOWATT
kWh	KILOWATT-HOURS
LAN	LOCAL AREA NETWORK
LED	LIGHT-EMITTING DIODE
LEC	LOCAL EXCHANGE CARRIER (OR SP)
LFC	LIQUID TIGHT FLEXIBLE CONDUIT
LUMEN	LUMINOUS FLUX (PROJECTOR BRIGHTNESS)
LV	LOW VOLTAGE
LVC	LOW VOLTAGE CONTROL INTERFACE
M	METER
mA	MILLIAMPERE
MAG	MAGNETIC
MB	MEGABYTE
Mbps	MEGABITS PER SECOND
MC	MAIN CROSS-CONNECT
MDF	MAIN DISTRIBUTION FRAME
MECH	MECHANICAL
MFR	MANUFACTURER
MHz	MEGAHERTZ
mm	MILLIMETER
MMFO	MULTI-MODE FIBER OPTIC
MNS	MASS NOTIFICATION SYSTEM
MPOE	MAIN POINT OF ENTRY
MPOP	MINIMUM POINT OF PRESENCE
MTR	MAIN TELECOM ROOM
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NETWORK INTERFACE CARD
NID	NETWORK INTERFACE DEVICE
NIT	1 CANDELA PER SQUARE METER (FLAT PANEL BRIGHTNESS)
nm	NANOMETER
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OEM	ORIGINAL EQUIPMENT MANUFACTURER
OFE	OWNER FURNISHED EQUIPMENT
OS	OPERATING SYSTEM
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
OSP	OUTSIDE PLANT
OTDR	OPTICAL TIME DOMAIN REFLECTOMETER

ABBREVIATIONS

PA	PUBLIC ADDRESS
PABX	PRIVATE AUTOMATIC BRANCH EXCHANGE
PBX	PRIVATE BRANCH EXCHANGE
PCI	PAYMENT CARD INDUSTRY
PE	POLYETHYLENE
PH	PHASE
POTS	PLAIN OLD TELEPHONE SERVICE
PR	PAIRS
PRI	PRIMARY RATE INTERFACE (ISDN)
PSTN	PUBLIC SWITCHED TELEPHONE NETWORK
PROX	PROXIMITY
PTZ	PAN TILT ZOOM CAMERA
PVC	POLYVINYL CHLORIDE
PWR	POWER
RCDD	REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
RF	RADIO FREQUENCY SIGNAL
RGBHV	HIGH RESOLUTION ANALOG VIDEO
RGS	RIGID GALVANIZED STEEL
RH	RELATIVE HUMIDITY
RMC	RIGID METALLIC CONDUIT
RNC	RIGID NON-METALLIC CABLE
RS-232	BI-DIRECTIONAL CONTROL DATA STREAM (RS-232/RS-422/RS485)
RX	RECEIVE
SMFO	SINGLE-MODE FIBER OPTIC
SMPOE	SECONDARY MAIN POINT OF ENTRY
SP	SERVICE PROVIDER
SPEAKER	SPEAKER LEVEL SIGNAL
SPL	SOUND PRESSURE LEVEL
STEREO	A BALANCED 2 CHANNEL AUDIO SIGNAL
STI-PA	SPEECH INTELLIGIBILITY INDEX - PUBLIC ADDRESS
STP	SHIELDED TWISTED PAIR
SW	SWITCH
TBB	TELECOMMUNICATIONS BONDING BACKBONE
TCP	TRANSMISSION CONTROL PROTOCOL
TCP/IP	TRANSMISSION CONTROL PROTOCOL WITH INTERNET PROTOCOL
TDD	TELECOMMUNICATIONS DEVICE FOR THE DEAF
TDR	TIME DOMAIN REFLECTOMETER
TDR	TELECOM DEMARC ROOM
TEL	TELEPHONE
TELCO	TELEPHONE COMPANY (SP)
TGB	TELECOMMUNICATIONS GROUND BUS BAR
TIA	TELECOMMUNICATIONS INDUSTRY ASSOCIATION
TMGB	TELECOMMUNICATIONS MAIN GROUND BUS BAR
TP	TOUCH PANEL (CONTROL SYSTEM)
TR	TELECOMMUNICATIONS ROOM
TTB	TELEPHONE TERMINAL BOARD
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
UBS	UNIFORM BUILDING CODE
UC	UNDER COUNTER
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
USB	UNIVERSAL SERIAL BUS
UTP	UNSHIELDED TWISTED PAIR
V	VOLTAGE
VC	VOLUME CONTROL
VGA	VIDEO GRAPHIC ARRAY (ANALOG COMPUTER SIGNAL, SEE ALSO RGBHV)
VM	VOLTMETER
VTC	VIDEO TELECONFERENCE SYSTEM
W	WATT
WAN	WIDE AREA NETWORK
WATS	WIDE AREA TELECOMMUNICATIONS SERVICE
WLAN	WIRELESS LOCAL AREA NETWORK (WIFI)
WM	WIRELESS MICROPHONE
WP	WEATHER PROOF
WT	WATERTIGHT
XFMR	TRANSFORMER
XP	EXPLOSION PROOF

GENERAL TECHNOLOGY SYSTEM REQUIREMENTS:

1. HEIGHTS SHOWN ARE TYPICAL TO CENTERLINE OF BOX UNLESS NOTED OTHERWISE. ALL DEVICE OUTLETS SHALL BE MOUNTED VERTICALLY.
2. MOUNTING HEIGHTS SHOWN ON ARCHITECTURAL ELEVATIONS SHALL GOVERN OVER THOSE SHOWN ABOVE.
3. ALL DEVICES INDICATED TO BE INSTALLED AT DIFFERENT MOUNTING HEIGHTS AND LOCATED WITHIN ONE STUD SPACE FROM EACH OTHER SHALL ALIGN VERTICALLY, ON THE SAME SIDE OF THE STUD. WHERE WALL MOUNTED TELEPHONES OCCUR OVER LIGHT SWITCHES, VOLUME CONTROLS, ETC. OFFSET ONE STUD SPACE.
4. ALL EXPOSED RACEWAYS SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO WALLS OR STRUCTURAL MEMBERS SUCH THAT THEY FOLLOW STRUCTURAL SURFACE CONTOURS AND SHALL BE INSTALLED SUCH THAT THEY DO NOT OBSTRUCT PASSAGEWAYS. MULTIPLE RACEWAYS SHOULD BE INSTALLED GROUPED TOGETHER. THE LOCATION OF THESE RACEWAYS SHALL BE APPROVED BY THE ARCHITECT PRIOR TO INSTALLATION. (EXTRA TIME SHOULD BE ALLOWED FOR THIS REVIEW AND APPROVAL).
5. ALL BACK BOXES SHALL BE FLUSH MOUNTED UNLESS OTHERWISE NOTED. CONTRACTOR SHALL COORDINATE INSTALLATION OF CONDUIT AND BACK BOXES IN POURED CONCRETE, MASONRY, AND GYP WALLS.
6. DATA GIVEN ON THE DRAWINGS IS AS EXACT AS COULD BE SECURED. ABSOLUTE ACCURACY IS NOT GUARANTEED AND THE CONTRACTOR SHALL OBTAIN AND VERIFY EXACT LOCATIONS, MEASUREMENTS,LEVELS,SPACE REQUIREMENTS, POTENTIAL CONFLICTS WITH OTHER TRADES,ETC. AT THE SITE AND SHALL SATISFACTORILY ADAPT HIS WORK TO ACTUAL CONDITIONS AT THE BUILDINGS.THE DRAWINGS ARE DIAGRAMMATICAL IN NATURE AND SHALL NOT BE SCALED.HOWEVER THIS DOES NOT RELIEVE ANY SUB-CONTRACTOR FROM COORDINATING HIS WORK WITH ALL OTHER TRADES AND FROM ADJUSTING HIS WORK AS REQUIRED BY THE ACTUAL CONDITIONS OF THE PROJECT.THE CONTRACTOR SHALL VISIT THE SITE BEFORE SUBMITTING A BID TO BECOME THOROUGHLY FAMILIAR WITH THE ACTUAL CONDITIONS OF THE PROJECT.
7. COORDINATE AND ADJUST ALL WORK BETWEEN TRADES AND EXISTING CONDITIONS IN ORDER TO ACCOMPLISH A NEAT, INTEGRATED AND EFFICIENT INSTALLATION WHICH INCLUDE BUT IS NOT LIMITED TO:
   A. EXAMINE THE CONTRACT DOCUMENTS OF ALL TRADES (IE. THE ARCHITECTURAL REFLECTED CEILING PLAN, MECHANICAL HVAC DRAWINGS, ELECTRICAL LIGHTING PLAN, TECHNOLOGY LAN, FIRE PROTECTION PLAN, ETC.)
   B. COORDINATE NECESSARY EQUIPMENT, FIXTURES, ETC. SO THAT THE FINAL INSTALLATION IS COMPATIBLE WITH THE MATERIALS AND EQUIPMENT OF THE OTHER TRADES,
   C. THIS CONTRACTOR SHALL ASSIST THE DIVISION 21, 22, & 23 CONTRACTOR IN PREPARING SHOP DRAWINGS FOR COORDINATING INSTALLATION OF ALL WORK (IE. LOCATING ALL CEILING CLEARANCES,CABLE TRAY, CLEARANCES THROUGHOUT, ETC.).
8. DEFINITIONS:

A. "FURNISH" MEANS TO "SUPPLY" AND USUALLY REFERS TO AN ITEM OF EQUIPMENT.

B. "INSTALL" MEANS TO "SET IN PLACE, CONNECT AND PLACE IN FULL OPERATIONAL ORDER".

C. "PROVIDE" MEANS TO "FURNISH AND INSTALL".

D. "EQUIVALENT"MEANS"MEETS THE SPECIFICATIONS OF THE REFERENCE PRODUCT OR ITEM IN ALL SIGNIFICANT ASPECTS."SIGNIFICANT ASPECTS SHALL BE DETERMINED BY THE ENGINEER.

E. "WORK BY OTHER(S)(CONTRACTOR)","RE:DIVISION XX",AND SIMILAR EXPRESSIONS MEANS WORK TO BE PERFORMED UNDER THE CONTRACT DOCUMENTS, BUT NOT NECESSARILY UNDER THE DIVISION OR SECTION OF THE WORK ON WHICH THE NOTE APPEARS. IT IS THE CONTRACTORS SOLE RESPONSIBILITY TO COORDINATE THE WORK OF THE CONTRACT BETWEEN HIS/HER SUPPLIERS, SUBCONTRACTORS, AND EMPLOYEES. IF CLARIFICATION IS REQUIRED, CONSULT ARCHITECT BEFORE SUBMITTING BID.

9. FUTURE WORK:
   A. THE DRAWINGS AND SPECIFICATIONS MAY INDICATE SOME WORK WHICH IS TO BE PROVIDED UNDER THIS SCOPE OF WORK BUT WHOSE TIMING MAY BE DIFFERENT THAN THE REST OF THE WORK.THIS WORK GENERALLY FACILITATES THE INSTALLATION OF "TENANT FINISH" WORK OR FOOD SERVICE WORK. IT IS WITHIN THIS DIVISION'S SCOPE OF WORK TO COORDINATE THIS WORK WITH THE WORK OF THE CONTRACTOR PROVIDING THE FUTURE SCOPE OF WORK.
10. "FIRE STOPPING"REQUIREMENT.ALL PENETRATIONS THROUGH RATED WALLS AND FLOORS AND CONDUIT/SLEEVE OPENINGS SHALL BE SEALED WITH MATERIAL CAPABLE OF PREVENTING THE PASSAGE OF FLAMES, HOT GASSES AND SMOKE WHEN SUBJECTED TO THE REQUIREMENTS OF THE TEST STANDARD SPECIFIC FOR ALL APPLICABLE CODES.
11. REFER TO ARCHITECTURAL DRAWINGS FOR MINIMUM CLEARANCE REQUIREMENTS TO DUCTWORK,CONDUIT, CABLE TRAY. LIGHTING, ETC.
12. ALL COMMUNICATIONS RACEWAY AND PATHWAYS INCLUDING BUT NOT LIMITED TO CONDUIT, SLEEVES, CABLE TRAY, J-HOOKS SHALL BE INSTALLED TO MINIMIZE UNNECESSARY CABLE LENGTHS AND MAINTAIN INDUSTRY STANDARD LENGTH LIMITATIONS FOR HORIZONTAL CABLE DISTRIBUTION (I.E. CAT.5E AND/CAT.6/CAT.6A),NO HORIZONTAL CABLE LENGTH (BASIC LINK) SHALL EXCEED 90 METERS (295 FEET).
13. CONDUIT SLEEVES SHALL BE INSTALLED THROUGH ALL WALLS WHERE CABLING IS ROUTED USING J-HOOKS TO PROVIDE CONTINUOUS UN-OBSTRUCTED PATHWAYS TO NEAREST COMMUNICATIONS ROOMS FROM STATIONS DEVICES.
14. REFER TO AV CONSTRUCTION DOCUMENTS FOR AV CONDUIT REQUIREMENT INCLUDING SIZES,QUANTITIES, AND LOCATIONS.
15. ALL COMMUNICATIONS CONDUIT, CABLE TRAYS, LADDER RACKS, AND EQUIPMENT RACKS SHALL BE BONDED TO BUILDING GROUND SYSTEM PER NEC 250.
16. ALL COMMUNICATION CONDUIT OR SLEEVES ROUTED THROUGH ELECTRICAL ROOMS SHALL BE PHYSICALLY CONTINUOUS AND BONDED TO GROUND SYSTEM.
17. ANY CABLE TRAY ROUTED THROUGH ELECTRICAL ROOMS OR WITHIN PROXIMITY OF INTERFERING ELECTRICAL SOURCES, SHALL BE ENCLOSED TYPE USING SOLID BOTTOM TROUGH WITH REMOVABLE COVERS. CABLE TRAY SHALL BE BONDED TO GROUND SYSTEM.
18. J-HOOKS SHALL BE ONLY USED IN ACCESSIBLE FINISHED CEILING SPACES NOT SERVED BY CABLE TRAY OR CONDUIT.
19. ALL TELE/DATA CONDUIT AND OTHER RACEWAY INFRASTRUCTURE SHALL HAVE NO LESS THAN 25% SPARE CAPACITY ABOVE THE NEC MINIMUM FILL RATIOS.
20. ALL COMMUNICATIONS CONDUIT LARGER THAN 2" SHALL HAVE A MINIMUM BEND RADIUS OF 10:1 OF THE INSIDE DIAMETER FOR ALL ELBOWS. ALL COMMUNICATIONS CONDUIT 2" AND SMALLER SHALL HAVE A MINIMUM BEND RADIUS OF 6:1 OF THE INSIDE DIAMETER FOR ALL ELBOWS.
21. COMMUNICATIONS CONDUIT ROUTING SHALL NOT EXCEED 180° FOR THE SUM OF ELBOWS FOR A PARTICULAR CONDUIT RUN WITHOUT AN APPROVED PULL-BOX OR MANHOLE. THE MAXIMUM BEND FOR ANY LOCATION SHALL NOT EXCEED 90°.
22. PROVIDE PROTECTIVE BUSHINGS ON ALL COMMUNICATIONS CONDUITS INCLUDING RISER CONDUITS/SLEEVES, HORIZONTAL CONDUITS, DEVICE CONDUITS, AND SLEEVES.
23. ALL RISER CONDUIT SHALL BE STUBBED A MINIMUM OF 2" AFF. PROVIDE A 2" CURB IF SLAB BLOCK-OUT IS USED RATHER THAN SLEEVES. SERVICE PROVIDER AND UNDERGROUND CONDUIT SHALL BE STUBBED A MINIMUM OF 4" AFF.
24. ALL FIBER OPTIC CABLE SHALL BE ARMORED OR INSTALLED WITHIN APPROVED/UL-LISTED INNER-DUCT COMPLETE WITH FITTINGS, COUPLINGS, AND ADAPTERS (CARLON RISER-GARD, PLENUM-GARD, OR APPROVED EQUAL). FIBER OPTIC CABLE CAN UTILIZE METALLIC ARMORED SHEATH RATHER THAN USINGINNER-DUCT.
25. FINAL CABLE INSTALLATION, ALL UNDERGROUND COMMUNICATIONS CONDUIT SHALL BE SEALED TO PREVENT WATER, GAS AND RODENTS FROM ENTERING FACILITY.
26. ALL COMMUNICATIONS CABLE INSTALLED BELOW GRADE SHALL BE GEL FILLED PIC/PE-89 PER RUS/REA DESIGNATION.
27. ALL UNDERGROUND COMMUNICATIONS CONDUIT SHALL HAVE METALLIC LOCATOR TAPE.
28. ALL COMMUNICATIONS CABLE SHALL BE PLENUM RATED (CMP), RISER RATED (CMR) AND UNDERGROUND RATED (WATERBLOCK) ACCORDING TO USE AND ENVIRONMENTAL CONDITIONS.
29. ALL BACKBONE (RISER) COMMUNICATIONS CABLE SHALL BE INSTALLED BASED ON A PHYSICAL STAR TOPOLOGY. REFER TO ONE-LINES DIAGRAMS FOR SPECIFIC ROUTING REQUIREMENTS.
30. ANY COMMUNICATIONS CABLES (FIBER AND COPPER) INSTALLED BELOW GRADE, UNDERGROUND,OR OTHER LOCATIONS SUBJECT TO WET CONDITIONS SHALL UTILIZE WATERBLOCK CONSTRUCTION.
31. CONTRACTOR SHALL NOT PAINT CABLES AND/OR SPRAY CABLES WITH FIRE PROOFING MATERIAL AS IT CAN AFFECT CABLE PERFORMANCE AND WILL VOID THE CABLE WARRANTY.

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Tel 303.421.6655

REVIEWED FOR CODE COMPLIANCE
09/23/2022

△	Date	Description
1	05/20/2022	ISSUE FOR CONSTRUCTION

Seal / Signature

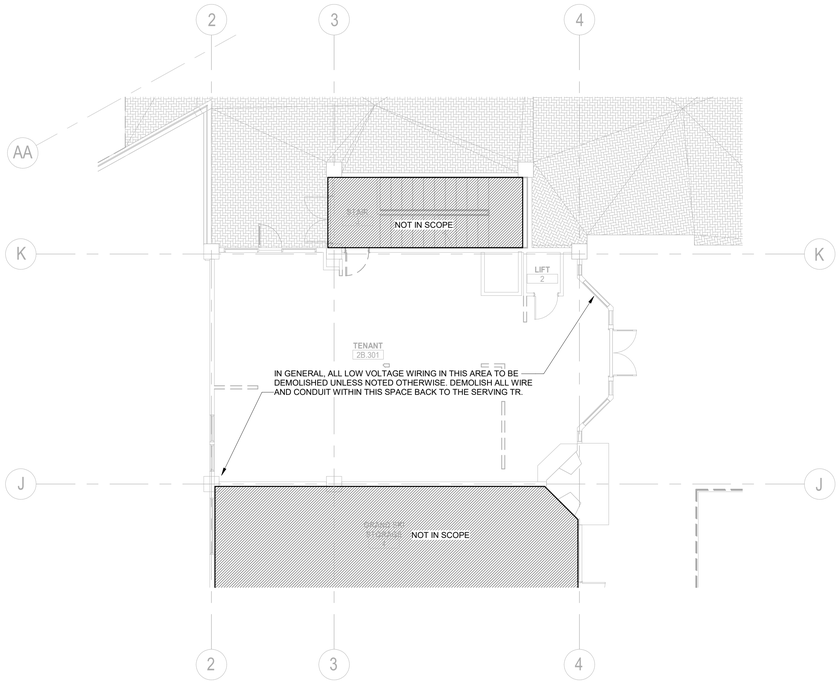
Project Name
Steamboat Base Village Redevelopment

Project Number
003.7835.000

Description
TECHNOLOGY GENERAL NOTES & ABBREVIATIONS

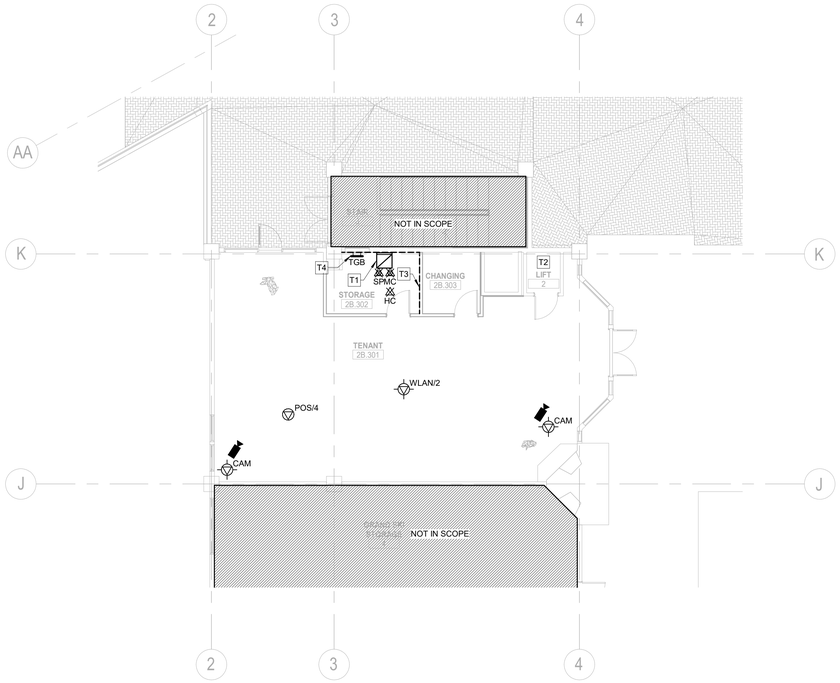
Scale
NO SCALE

2B-T0.001



1 TECHNOLOGY DEMOLITION PLAN - LEVEL 03

SCALE: 1/8" = 1'-0"



2 TECHNOLOGY PLAN - LEVEL 03

SCALE: 1/8" = 1'-0"

GENERAL NOTES:

1. REFER TO SYMBOL LEGEND FOR ADDITIONAL REQUIREMENTS, INCLUDING BUT NOT LIMITED TO, INSTALLATION OF RACEWAY, CABLING, AND DEVICES.

2. REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL INFORMATION PERTAINING TO DATA CENTER EQUIPMENT (PRODUCTS AND INSTALLATION) DESCRIBED IN KEYNOTES BELOW, SPECIFICALLY DIVSION 27.

3. CONTRACTOR SHALL VERIFY AND COORDINATE ALL WALL SPACE REQUIREMENTS WITH OTHER LOW VOLTAGE TRADES (SECURITY, AV, FIRE ALARM, ETC.) DURING SHOP DRAWING COORDINATION PROCESS TO CONFIRM FINAL PLACEMENT OF ALL TERMINATIONS AND EQUIPMENT WITHIN DATA CENTER.

KEYNOTES

T1	RACK PROVIDED BY OTHER SHOWN FOR REFERENCE ONLY.
T2	ALL LOW VOLTAGE WIRING ASSOCIATED WITH LIFT TO REMAIN.
T3	PLYWOOD BACKBOARD: PROVIDE 4' X 8' X 3/4" AC GRADE PLYWOOD BACKBOARD MOUNTED ON (2) WALLS AT 6" AFF TO 102" AFF. MOUNT PLYWOOD WITH A-SIDE OUT AND PAINTED WHITE.
T4	TGB: TELECOMMUNICATION GROUND BAR CONNECTED WITH #3/0 TO BUILDING TELECOMMUNICATIONS GROUNDING SYSTEM.

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me engineers

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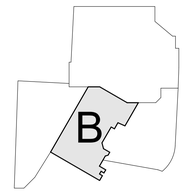
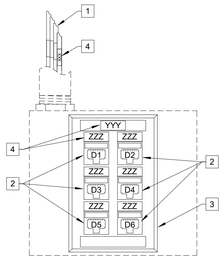
TECHNOLOGY PLAN - LEVEL 03

Scale
1/8" = 1'-0"

KEY PLAN



2B-T1.201



GENERAL NOTES:

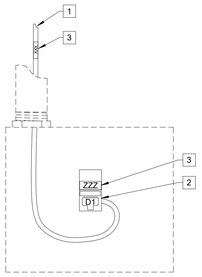
1. REFER TO DETAIL R.01 FOR RACEWAY REQUIREMENTS INCLUDING BACK-BOX AND CONDUIT.
2. PROVIDE MODULAR DUST COVER(S) ON ALL UNUSED FACEPLATE PORTS AS REQUIRED.

KEYNOTES: #

1. DATA CABLE: PROVIDE 4-PAIR UTP CABLE(S) ORIGINATING FROM THE NEAREST HORIZONTAL CROSS-CONNECT (HC). REFER TO DEVICE SYMBOL AND LEGEND DESCRIPTION FOR CABLE QUANTITIES.
2. DATA TERMINATIONS: PROVIDE RJ45 TYPE MODULAR JACK INTERCONNECTED TO EACH UTP CABLE. PROVIDE COLORED PORTS ACCORDING TO THE COLOR SCHEDULE ON THE LEGEND SHEET.
3. FACE PLATE: PROVIDE MODULAR FACEPLATE WITH PORTS AS REQUIRED PER CABLE COUNTS.
4. LABELS: PROVIDE WHITE LABELS WITH BLACK TEXT TO NOTE STATION ID (YYY), TERMINATION ID (ZZZ) AND CABLE ID (XXX). REFER TO TYPICAL DEVICE LABELING DETAIL FOR ADDITIONAL REQUIREMENTS.

C.02 VOICE/DATA DEVICE (5 OR 6 PORTS)

SYMBOLS: ▽# ▽# ▽ATM/# ▽POS/# ▽P ▽AV



GENERAL NOTES:

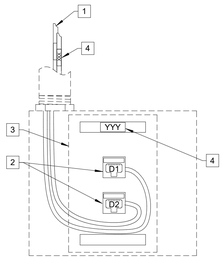
1. INTENT OF THIS DETAIL IS TO DEPICT STRUCTURED CABLING REQUIREMENTS. REFER TO OTHER SYSTEMS DRAWINGS (AV, SECURITY, ETC.) FOR BACK-BOX REQUIREMENTS SPECIFIC TO EACH DEVICE TYPE. SELECT DEVICES MAY REQUIRE SPECIALIZED BACK-BOX TYPES, SIZES AND MOUNTING CONDITIONS.
2. CONTRACTOR TO PROVIDE DATA OUTLET(S) MOUNTED IN PLENUM RATED BISCUIT IN LIEU OF BACK-BOX FOR DEVICES LOCATED ABOVE ACCESSIBLE CEILINGS.

KEYNOTES: #

1. DATA CABLE: PROVIDE 4-PAIR UTP CABLE(S) ORIGINATING FROM THE NEAREST HORIZONTAL CROSS-CONNECT (HC). REFER TO DEVICE SYMBOL AND LEGEND DESCRIPTION FOR CABLE QUANTITIES.
2. DATA TERMINATIONS: PROVIDE RJ45 TYPE MODULAR JACK INTERCONNECTED TO EACH UTP CABLE. CABLE AND JACK SHALL REMAIN LOOSE INSIDE BACK-BOX.
3. LABELS: PROVIDE WHITE LABELS WITH BLACK TEXT TO NOTE STATION ID (YYY), TERMINATION ID (ZZZ) AND CABLE ID (XXX). ACTUAL LABELING SCHEME SHALL BE COORDINATED WITH THE OWNER AND ENGINEER. REFER TO COMMUNICATION AND CABLE DETAILS.

C.03 MISCELLANEOUS DATA DEVICE

SYMBOLS: ▽CAM ◈CAM ▽CP ▽C ▽TR



GENERAL NOTES:

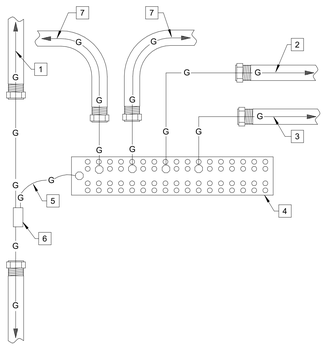
1. REFER TO DETAIL R.01 FOR RACEWAY REQUIREMENTS INCLUDING BACK-BOX AND CONDUIT.
2. REFER TO WI-FI ENCLOSURE DETAILS AS APPLICABLE FOR REQUIREMENTS SPECIFIC TO WEATHER PROOF ENCLOSURES AND/OR CUSTOM STEALTH ENCLOSURES. INTENT OF THIS DETAIL IS TO DEPICT STRUCTURED CABLING REQUIREMENTS. PROVIDE DATA OUTLET(S) MOUNTED IN BISCUIT WITHIN WI-FI ENCLOSURES.
3. CONTRACTOR TO PROVIDE DATA OUTLET(S) MOUNTED IN PLENUM RATED BISCUIT IN LIEU OF BACK-BOX FOR DEVICES LOCATED ABOVE ACCESSIBLE CEILINGS.

KEYNOTES: #

1. DATA CABLE: PROVIDE 4-PAIR UTP CABLE(S) ORIGINATING FROM THE NEAREST HORIZONTAL CROSS-CONNECT (HC). REFER TO DEVICE SYMBOL AND LEGEND DESCRIPTION FOR CABLE QUANTITIES.
2. DATA TERMINATIONS: PROVIDE RJ45 TYPE MODULAR JACK INTERCONNECTED TO EACH UTP CABLE. CABLE AND JACK SHALL REMAIN LOOSE INSIDE BACK-BOX.
3. FACE PLATE: PROVIDE BLANK (WHITE) FACEPLATE TO COVER BACK-BOX UNTIL WI-FI ACCESS POINT IS INSTALLED BY OTHERS.
4. LABELS: PROVIDE WHITE LABELS WITH BLACK TEXT TO NOTE STATION ID (YYY), TERMINATION ID (ZZZ) AND CABLE ID (XXX). REFER TO TYPICAL DEVICE LABELING DETAIL FOR ADDITIONAL REQUIREMENTS.

C.04 WIRELESS LAN (WI-FI) DATA DEVICE

SYMBOLS: ▽WLAN/# ◈WLAN/#

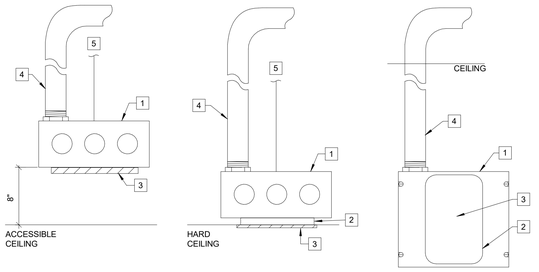


KEYNOTES: #

1. RISER-TBB: PROVIDE (1) #3/0 AWG INSULATED STRANDED COPPER CONDUCTOR VERTICALLY TO THE FURTHEST RISER TGB FROM TMGB. CABLE SHALL BE INSTALLED IN 1" (25mm) CONDUIT.
2. PROVIDE (1) #3/0 AWG INSULATED STRANDED COPPER CONDUCTOR BONDED TO NEAREST BUILDING STRUCTURAL STEEL. CABLE SHALL BE INSTALLED IN 1-INCH CONDUIT, IF ROUTED OUTSIDE OF ROOM.
3. PROVIDE (1) #3/0 AWG INSULATED STRANDED COPPER CONDUCTOR BONDED TO NEAREST ELECTRICAL PANEL GROUND BUS. CABLE SHALL BE INSTALLED IN 1-INCH CONDUIT.
4. TGB: PROVIDE (1) 20" X 4" X 1/4" TINNED COPPER BUS ON ISOLATED STAND-OFF INSULATORS. GROUND BUS SHALL HAVE PRE-DRILLED HOLES FOR DUAL HOLE MOUNTING LUGS.
5. TAP CONDUCTOR: PROVIDE (1) #3/0 AWG INSULATED STRANDED COPPER CONDUCTOR FROM TBB TO THE TGB. CABLE SHALL BE ROUTED IN 1" (25mm) CONDUIT IF ROUTED OUTSIDE OF ROOM IN RETURN AIR PLENUM OR EXPOSED TO PUBLIC VIEW.
6. TAP FITTING: PROVIDE IRREVERSIBLE HIGH COMPRESSION FITTING.
7. TELECOMMUNICATIONS GROUNDING EQUALIZER: (1) # 3/0 AWG INSULATED STRANDED COPPER CONDUCTORS HORIZONTALLY INTERCONNECTING TELECOMMUNICATIONS GROUND BUS (TGB) ON SELECT LEVELS. AS INDICATED ON GROUNDING ONE-LINE. CABLE SHALL BE INSTALLED IN 1" (25mm) CONDUIT IF INSTALLED IN RETURN AIR PLENUM OR EXPOSED TO PUBLIC VIEW.

G.01 TELECOM GROUND BUSBAR (TGB)

SYMBOLS: ▬TGB ▬I-TGB



ABOVE CEILING MOUNTED | FLUSH CEILING MOUNTED | WALL MOUNTED

GENERAL NOTES:

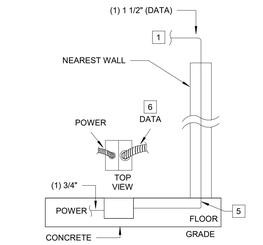
1. REFER TO SYSTEM SYMBOL LEGEND - PATHWAY REQUIREMENT NOTES TO CONFIRM IF CONDUIT STUBS TO CEILING AND USE OF J-HOOKS IS ALLOWED OR IF CONTINUOUS CONDUIT IS REQUIRED FOR ALL LOCATIONS. PARTICULAR ATTENTION SHALL BE GIVEN TO CONDUIT ROUTING NOTES AS EACH SYSTEM (AV, COMM, SECURITY, ETC.) HAS SPECIFIC CONDUIT ROUTING REQUIREMENTS.

KEYNOTES: #

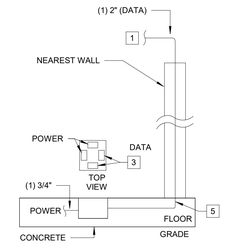
1. BACK-BOX: PROVIDE 4"X4"X2-1/8" FLUSH MOUNTED BOX.
2. MUD-RING: PROVIDE 1-GANG MUD RING FOR MOUNTING OF DEVICE / FACEPLATE. MUD RING SHALL BE SEPARATE COMPONENT FROM BACK-BOX.
3. FACE PLATE: REQUIREMENTS VARY, REFER TO SPECIFIC DEVICE DETAILS FOR ADDITIONAL INFORMATION.
4. CONDUIT: PROVIDE CONDUIT SIZED AS FOLLOWS:
   (1) 1-INCH CONDUIT FOR (1-4) CABLES/PORTS
   (1) 1-1/4-INCH CONDUIT FOR (5-6) CABLES/PORT
5. SUPPORT: PROVIDE THREADED ROD ATTACHED TO STRUCTURE ABOVE.

R.01 COMM RACEWAY DEVICES

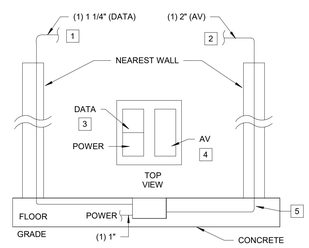
SYMBOLS: ▽X ◈X



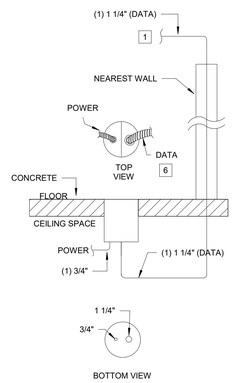
FLOOR BOX FURN. FEED (DATA)
BASIS OF DESIGN: LEGRAND EFBFF-OG
SYMBOLS: ◈*



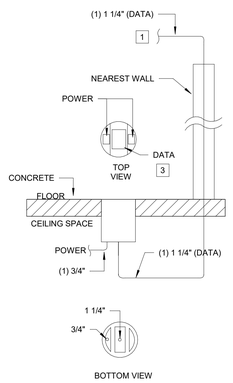
FLOOR BOX DEVICE (DATA)
BASIS OF DESIGN: LEGRAND RFB4E-OG
SYMBOLS: ◈#



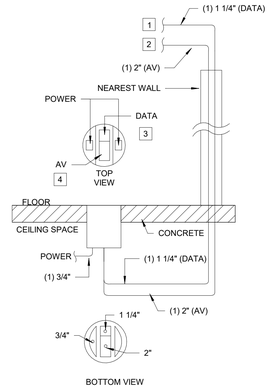
FLOOR BOX DEVICE (DATA & AV)
BASIS OF DESIGN: LEGRAND EFB8S-OG
SYMBOLS: ◈AV/#



POKE THRU FURN. FEED DEVICE (DATA)
BASIS OF DESIGN: LEGRAND 4FFATC
SYMBOLS: ◈*



POKE THRU DEVICE (DATA)
BASIS OF DESIGN: LEGRAND 6AT
SYMBOLS: ◈#



POKE THRU DEVICE (DATA & AV)
BASIS OF DESIGN: LEGRAND 8AT
SYMBOLS: ◈AV/#

GENERAL NOTES

1. FLOOR BOX DETAILS ARE SCHEMATIC IN NATURE AND DEPICT COMMON PATHWAY REQUIREMENTS. INSTALLATION REQUIREMENTS MAY VARY BASED ON FIELD CONDITION SUCH AS WALL TYPE.
2. FLOOR BOX DEVICES SHALL BE INSTALLED WITHIN FLOORS THAT RESIDE ON GRADE. ENCASE ENTIRE FLOOR BOX AND CONDUIT WITHIN CONTRETE SLAB. IN CASES WHERE THE FLOOR SLAB THICKNESS DOES NOT SUPPORT SPECIFIED FLOOR BOX DEPTH, PROVIDE ADDITIONAL TRENCHING AS REQUIRED TO ENCASE FLOOR BOX AND CONDUIT. COORDINATE ALL FINAL LOCATION WITH ARCHITECTURAL AND DIVISION 03 PRIOR TO INSTALL.
3. POKE THRU DEVICES SHALL BE INSTALLED WITHIN FLOORS CAPABLE OF PROVIDING A CORE OPENING ACCORDING TO MANUFACTURER'S REQUIREMENTS. FLOOR SHALL NOT BE AT GRADE LEVEL AND SHALL HAVE AN ACCESSIBLE LEVEL BELOW. PROVIDE FIRE RATING APPROPRIATE TO FLOOR FIRE RATING, REFER TO DIVISION 7.
4. BASIS OF DESIGN (BOD) PRODUCT INFORMATION IS BASED ON A COORDINATED SOLUTION FOR ALL SYSTEMS. ANY PRODUCT SUBSTITUTIONS SHALL BE APPROVED BY LOW VOLTAGE ENGINEER PRIOR TO INSTALLATION TO ENSURE DESIGN INTENT IS MET.
5. REFER OT ELECTRICAL DOCUMENTS FOR ALL POWER REFERENCES.

KEYNOTES #

1. REFER TO COMMUNICATION LEGEND - PATHWAY REQUIREMENT NOTES FOR CONDUIT CONTINUATION REQUIREMENTS.
2. REFER TO AUDIOVISUAL LEGEND - PATHWAY REQUIREMENT NOTES FOR CONDUIT CONTINUATION REQUIREMENTS.
3. DATA OUTLETS: REFER TO DETAIL C.05 FOR DATA TERMINATION REQUIREMENTS. PROVIDE STYLE-LINE (DECORA) FRAME AT EACH DATA COMPARTMENT.
4. AV OUTLETS: PROVIDE APPROPRIATE ACCESSORIES FOR AV OUTLET TYPE AND QUANTITY AS REQUIRED PER AV DOCUMENTS. IN CASE WHERE HD-BASE-T TRANSMITTER IS LOCATED WITHIN DEVICE, UTILIZE STAND OFFS TO PROVIDE INSTALL SPACE AND HEAT DISSIPATION AS NECESSARY.
5. CONDUIT BENDS: IF FLOOR DEPTH IS NOT SUFFICIENT TO ACCOMIDATE CONDUIT BEND RADIUS, A HORIZONTAL 90 DEGREE BEND CAN BE UTILIZED TO PUT CONDUIT IN LINE WITH WALL SECTION IN ORDER TO BEND CONDUIT VERTICALLY INTO WALL. TOTAL CONDUIT BENDS SHALL NOT EXCEED (3) 90 DEGREE BENDS BEFORE PULL BOX IS UTILIZED.
6. FLEXIBLE WHIP: PROVIDE 1 1/4-INCH FLEXIBLE CONDUIT WHIP EXTENDED FROM COVER PLATE TO MODULAR FURNITURE.

R.03 FLOOR DEVICE DETAILS

SYMBOLS: SYMBOLS SHOWN ABOVE

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United States
Tel 303.595.8585
Fax 303.825.6823

me engineers
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Golden, CO
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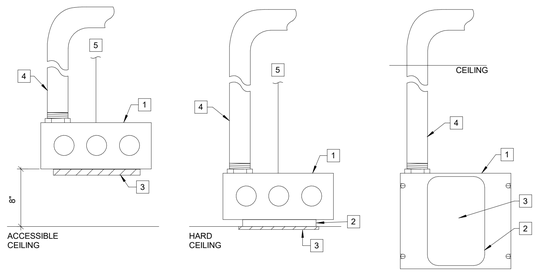
2B-T8.000



ABOVE CEILING MOUNTED | FLUSH CEILING MOUNTED

GENERAL NOTES:

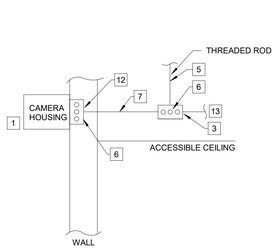
1. REFER TO DEVICE SYMBOL NOTES ON TECHNOLOGY LEGEND TO CONFIRM IF CONDUIT STUBS TO CEILING AND USE OF J-HOOKS IS ALLOWED OR IF CONTINUOUS CONDUIT IS REQUIRED FOR ALL LOCATIONS.
2. REFER TO ADDITIONAL SECURITY DETAILS (CAMERA MOUNTING TYPES, DOOR DETAILS, ETC.) FOR ADDITIONAL INFORMATION.

KEYNOTES: #

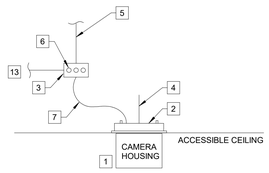
1. BACK-BOX: PROVIDE 4"X4"X2-1/8" FLUSH MOUNTED BOX.
2. MUD-RING: PROVIDE 1-GANG MUD RING FOR MOUNTING OF DEVICE / FACEPLATE. MUD RING SHALL BE SEPARATE COMPONENT FROM BACK-BOX.
3. FACE PLATE: PROVIDE 1-PORT FACEPLATE FOR CAMERA BACK-BOXES MOUNTED ABOVE ACCESSIBLE CEILING. CAMERAS, CARD READERS, AND OTHER SECURITY DEVICES WILL MOUNT DIRECTLY OVER BACK-BOX OPENING FOR ALL OTHER MOUNTING CONDITIONS.
4. CONDUIT: PROVIDE (1) 3/4-INCH CONDUIT.
5. SUPPORT: PROVIDE THREADED ROD ATTACHED TO STRUCTURE ABOVE.

S.01 SECURITY DEVICE RACEWAY DETAIL

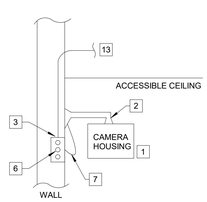
SYMBOLS:



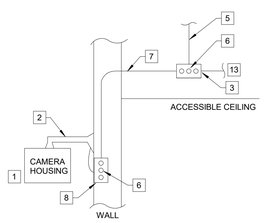
S.02/WE - WALL (EXTERIOR)



S.02/C - CEILING (ACCESSIBLE)

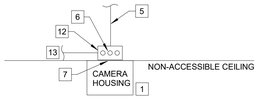


S.02/WA - WALL - ARM MOUNT

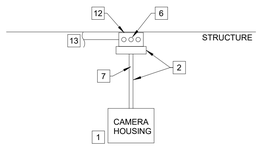


S.02/WAE - WALL (EXTERIOR) - ARM MOUNT

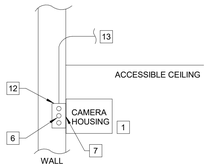
NOTE: PROVIDE A CORNER MOUNT BRACKET FOR CORNER MOUNTED CAMERAS. LOCATE DEVICE BOX 6-INCHES OFF SET FROM CORNER AND 8-INCHES BELOW CAMERA MOUNTING HEIGHT (REFER TO DEVICE MOUNT HEIGHT DETAIL).



S.02/CN - CEILING (NON-ACCESSIBLE)



S.02/CX - CEILING - (EXPOSED)



S.02/W - WALL

GENERAL NOTES:

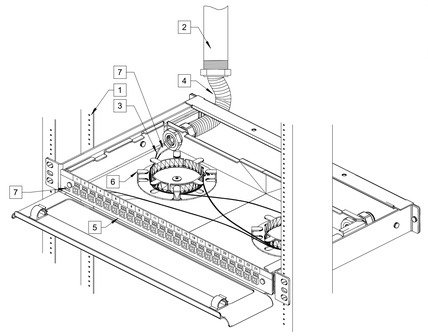
1. PROVIDE BLANK COVER PLATE OVER CAMERA BACK-BOXES WHERE CAMERA DOES NOT MOUNT DIRECTLY OVER BOX OPENING.

KEYNOTES #

1. CAMERA: REFER TO CAMERA SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS ON CAMERA TYPE AND HOUSING.
2. CAMERA MOUNT: PROVIDE CAMERA MOUNTING BRACKET AND ACCESSORIES PER MANUFACTURER RECOMMENDATIONS FOR THIS MOUNTING CONDITION.
3. RACEWAY: REFER TO DETAIL R.01 FOR BACK-BOX REQUIREMENTS.
4. HANGER: PROVIDE HANGER WIRE ATTACHED TO STRUCTURE ABOVE PER MANUFACTURER RECOMMENDATIONS.
5. SUPPORT: PROVIDE THREADED ROD ATTACHED TO STRUCTURE ABOVE.
6. DATA CABLE: REFER TO DETAIL C.03 FOR STRUCTURED CABLING REQUIREMENTS.
7. PATCH CABLE: PROVIDE DATA PATCH CORD TO CONNECT CAMERA IF CAMERA MODEL DOES NOT HAVE PIGTAIL DATA CONNECTION.
8. WEATHER PROOF RACEWAY: PROVIDE A 1-GANG MASONRY BACK BOX WITH AN APPROPRIATE WEATHER PROOF FACEPLATE AND A 1-INCH LIQUID TIGHT CONDUIT ROUTED FROM BACK-BOX TO CAMERA MOUNT.
9. BASE: COORDINATE CONCRETE BASE REQUIREMENTS WITH POLE MANUFACTURER PRIOR TO INSTALLATION.
10. PATHWAY: COORDINATE WITH THE ELECTRICAL CONTRACTOR TO PRIOR TO INSTALLATION TO ENSURE THE POWER CONDUCTORS ARE ROUTED WITHIN CONDUIT FOR SEPERATION.
11. MOUNTING LOCATION: MOUNT CAMERA BELOW LIGHT FIXTURE. COORDINATE FINAL MOUNTING REQUIREMENTS WITH LIGHT POLE MANUFACTURER PRIOR TO FABRICATION.
12. CAMERA MOUNTING BOX: PROVIDE 4"X4"X2-1/8" FLUSH MOUNTED BOX WITH SINGLE GANG MUD RING OR MASONRY EQUIVALENT.
13. CONDUIT CONTINUATION: REFER TO COMMUNICATION SYSTEM SYMBOL - PATHWAY REQUIREMENT NOTES FOR CONDUIT CONTINUATION REQUIREMENTS.

S.02 SECURITY SYSTEM CAMERA DETAILS

SYMBOLS:



GENERAL NOTES:

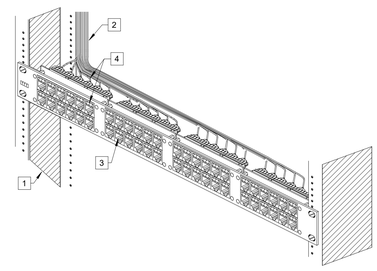
1. REFER TO DEVICE SYMBOL AND LEGEND DESCRIPTION FOR ADDITIONAL INFORMATION.

KEYNOTES: #

1. EQUIPMENT RACK: SHOWN FOR REFERENCE ONLY. REFER TO PLAN DRAWINGS FOR REQUIREMENTS.
2. CONDUIT: PROVIDE CONDUIT FROM RACK LOCATION TO NEAREST CABLE TRAY OR COMM ROOM. REFER TO PLAN DRAWINGS FOR ADDITIONAL REQUIREMENTS.
3. FIBER OPTIC CABLE: PROVIDE MMFO / SMFO STRANDS WHERE "MM" = MMFO STRAND COUNT AND "SM" = SMFO STRAND COUNT. (EX: 12/24 = 12-MMFO + 24-SMFO). ALL FIBER OPTIC CABLE SHALL ORIGINATE FROM FIBER OPTIC MAIN CROSS-CONNECT.
4. CABLE PROTECTION: PROVIDE (1) 1" PLENUM RATED/UL-LISTED FIBER OPTIC INNER-DUCT (OR ARMORED FIBER OPTIC CABLE).
5. FIBER OPTIC TERMINATIONS: PROVIDE LC-TYPE TERMINALS MOUNTED IN (1) 24-PORT MODULAR PATCH PANEL WITH FIBER CABLE ORGANIZER.
6. FIBER OPTIC CABLE SPOOL: PROVIDE FIBER OPTIC CABLE SPOOL(S).
7. LABELS: PROVIDE WHITE LABELS WITH BLACK TEXT TO NOTE STATION ID (YYY), TERMINATION ID (ZZZ) AND CABLE ID (XXX). REFER TO TYPICAL DEVICE LABELING DETAIL FOR ADDITIONAL REQUIREMENTS.

C.11 FIBER OPTIC RACK MOUNT PATCH PANEL

SYMBOLS: ##



GENERAL NOTES:

1. REFER TO DEVICE SYMBOL AND LEGEND DESCRIPTION FOR ADDITIONAL INFORMATION.

KEYNOTES: #

1. EQUIPMENT RACK: SHOWN FOR REFERENCE ONLY. REFER TO PLAN DRAWINGS FOR REQUIREMENTS.
2. DATA CABLE: PROVIDE (##) 4-PAIR UTP CABLE(S) ORIGINATING FROM DATA OUTLETS WHERE ## = CABLE / PORT QUANTITIES.
3. COPPER CABLE TERMINATIONS: PROVIDE 24-PORT OR 48-PORT MODULAR PATCH PANEL(S) WITH KEYSTONE-STYLE MODULAR RJ45 JACKS AS REQUIRED TO TERMINATE CABLE PORT QUANTITIES AT EACH SPECIFIC LOCATION TO MATCH CABLE CATEGORY.
4. LABELS: PROVIDE WHITE LABELS WITH BLACK TEXT TO NOTE STATION ID (YYY), TERMINATION ID (ZZZ) AND CABLE ID (XXX). REFER TO TYPICAL DEVICE LABELING DETAIL FOR ADDITIONAL REQUIREMENTS.

C.13 DATA CABLE RACK MOUNT MODULAR PATCH PANEL

SYMBOLS: # AV/#

2 C.13 - DATA CABLE RACK MOUNT PATCH PANEL
NO SCALE

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ALTERRA MOUNTAIN COMPANY east west partners
2305 Mount Werner Circle
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Golden, CO
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Tel 303.421.6655

REVIEWED FOR CODE COMPLIANCE
09/23/2022

△	Date	Description
1	05/20/2022	ISSUE FOR CONSTRUCTION

Seal / Signature

Project Name
Steamboat Base Village Redevelopment

Project Number
003.7835.000

Description
TECHNOLOGY DETAILS

Scale
NO SCALE

2B-T8.001

KEY PLAN